

Fig. 1



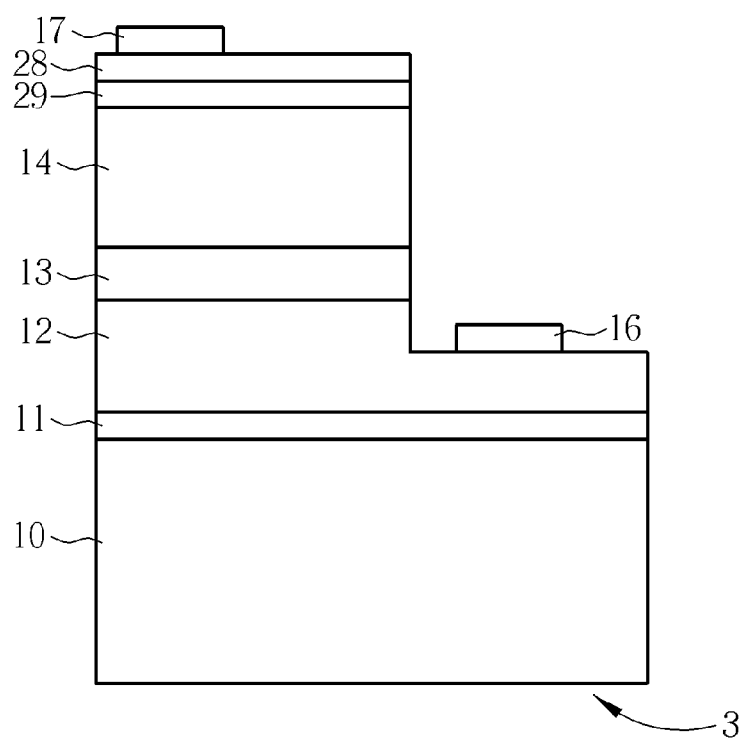


Fig. 2



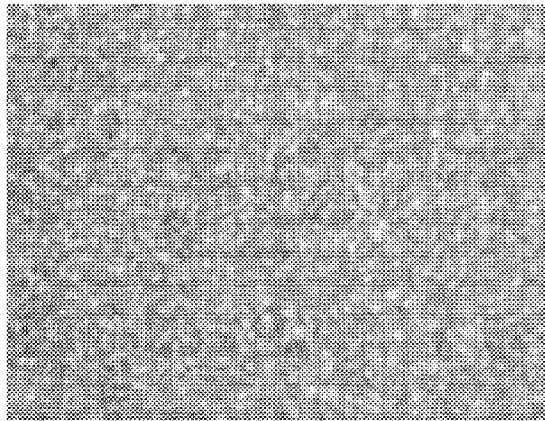


Fig. 3



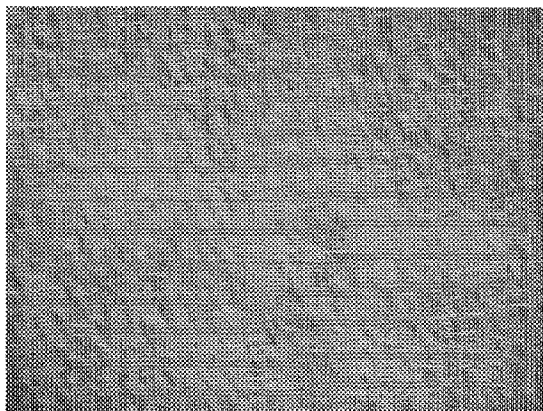


Fig. 4





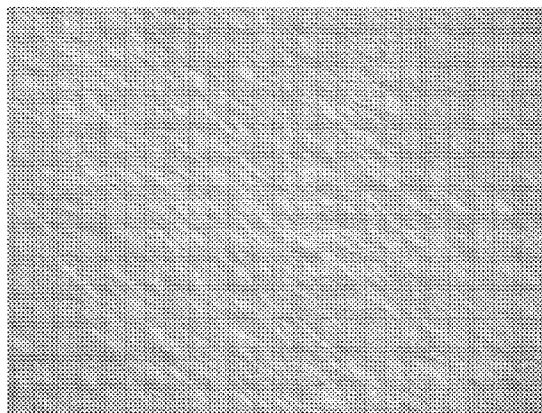


Fig. 5



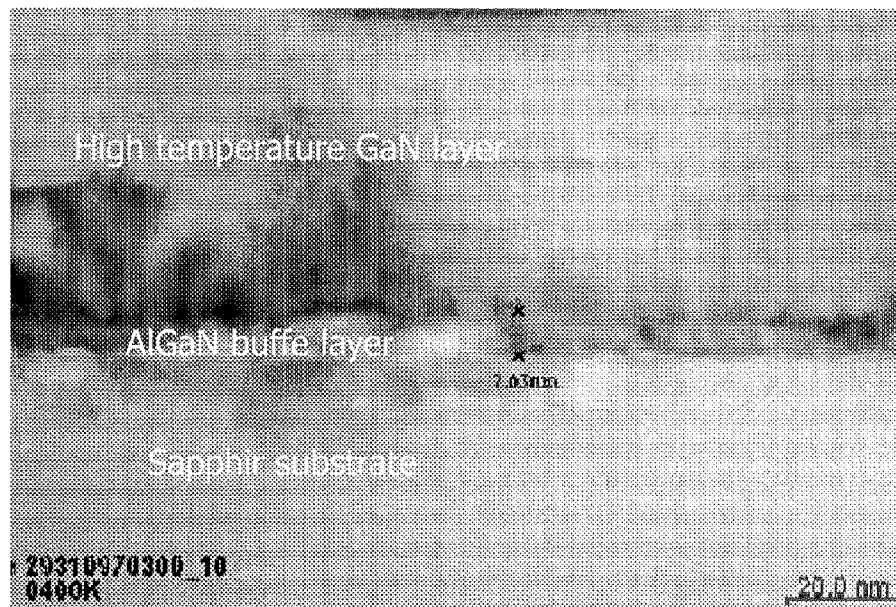


Fig. 6



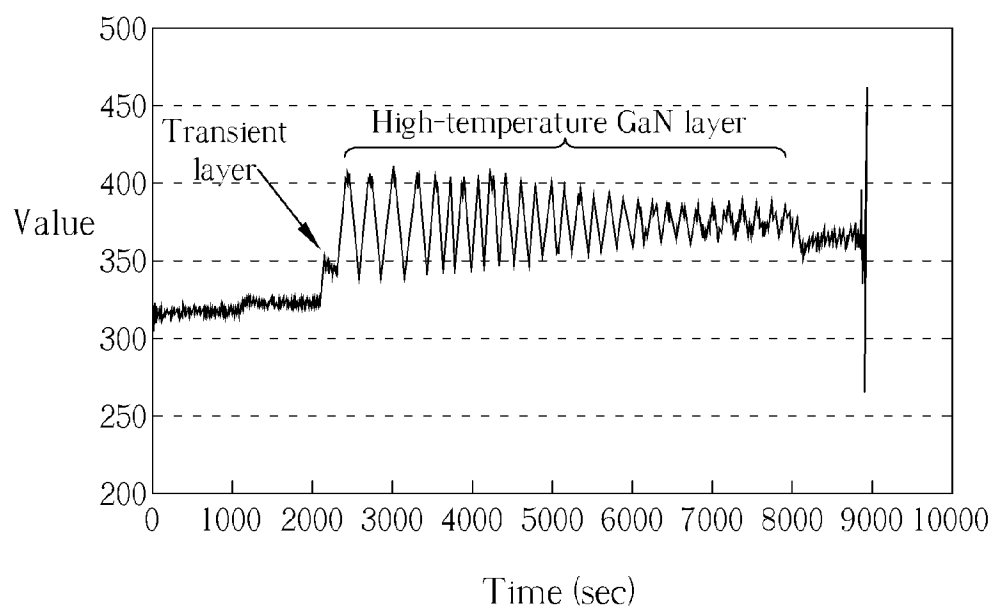


Fig. 7



	Brightness at 20mA (mcd)	Forward bias at 20mA (V)	Leakage current at -5V ( $\mu$ A)	Reverse voltage at -10V (V)
Buffer provided by two-step growth method	37~40	3.14~3.25	0.00~0.01	24~32
Ternary nitride-based buffer layer provided by the present invention	38~42	3.17~3.24	0.00~0.01	20~33

Fig. 8

